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APPLICATION NO.	FILIN	G DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,343			Nigel Peter Smith	85116	5889
7:	590	04/09/2003			
Welsh & Katz	-		EXAMINER		
120 South Rive 22nd Floor	rside Plaz	a	RAMANA, ANURADHA		
Chicago, IL 60	0606-3913	3		ART UNIT PAPER NUMBER	
				3732	7
				DATE MAILED: 04/09/2003	/

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application N	o.	Applicant(s)	$\bigcap$
	10/030,343		SMITH ET AL.	O V
Office Action Summary	Examiner		Art Unit	
	Anu Ramana		3732	
The MAILING DATE of this communication apperiod for Reply	pears on the cov	ver sheet with the d	correspondence addi	ress
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.  after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a rep  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statute  - Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).  Status	136(a). In no event, ho ly within the statutory i will apply and will expi e, cause the applicatio	owever, may a reply be tin minimum of thirty (30) day re SIX (6) MONTHS from n to become ABANDONE	nely filed s will be considered timely. the mailing date of this com D (35 U.S.C. § 133).	munication.
1) Responsive to communication(s) filed on 24.	February 2003 .			
2a)⊠ This action is <b>FINAL</b> . 2b)□ Th	nis action is non	-final.		
3) Since this application is in condition for allow closed in accordance with the practice under Disposition of Claims				merits is
4) $\boxtimes$ Claim(s) <u>2-4,6-14 and 21</u> is/are pending in the	e annlication			
4a) Of the above claim(s) is/are withdra		eration		
5) Claim(s) is/are allowed.		5,41011.		
6)⊠ Claim(s) <u>2-4, 6-14 and 21</u> is/are rejected.				
7) Claim(s) is/are objected to.				
8) Claim(s) are subject to restriction and/o	or election requi	rement.		
Application Papers	•			
9)☐ The specification is objected to by the Examine	er.			
10) ☐ The drawing(s) filed on is/are: a) ☐ acce	pted or b)☐ obje	cted to by the Exa	miner.	
Applicant may not request that any objection to th		-		
11) ☐ The proposed drawing correction filed on <u>2/24/</u>	<u>03</u> is: a)⊠ appr	oved b)⊡ disappr	oved by the Examine	er.
If approved, corrected drawings are required in re	•	action.		
12) The oath or declaration is objected to by the Ex	raminer.			
Priority under 35 U.S.C. §§ 119 and 120				
13) Acknowledgment is made of a claim for foreign	n priority under	35 U.S.C. § 119(a	)-(d) or (f).	
a) ☐ All b) ☐ Some * c) ☐ None of:				
<ol> <li>Certified copies of the priority document</li> </ol>	ts have been red	ceived.		
<ol><li>Certified copies of the priority document</li></ol>	ts have been red	ceived in Application	on No	
<ul> <li>3. Copies of the certified copies of the prio application from the International Bu</li> <li>* See the attached detailed Office action for a list</li> </ul>	ireau (PCT Rule	17.2(a)).		age
14) Acknowledgment is made of a claim for domesti	ic priority under	35 U.S.C. § 119(e	) (to a provisional a	pplication).
a) The translation of the foreign language pro	• •			
Attachment(s)	. •			
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	4) [ 5) [ 6) [		(PTO-413) Paper No(s). atent Application (PTO-	

Application/Control Number: 10/030,343

Art Unit: 3732

#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-4, 6-14 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 is vague and indefinite as it is incomplete in that it lacks sufficient structure to support the functional recitation ("to create a pumping action." Note, the claim inferentially claims the chamber as well as a two-way path, which chamber and two-way path causes the pumping action.

Claim 12 recites the limitation "said chamber" in line 1. There is insufficient antecedent basis for this limitation in the claim.

#### Allowable Subject Matter

Claims 2-4, 6-14 and 21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

## Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anu Ramana whose telephone number is (703) 306-4035. The examiner can normally be reached Monday through Friday between 8:30 am and 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached at (703) 308-2582. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-2708 for regular communications and (703) 308-2708 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

AR April 3, 2003

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700